Claims

What is claimed is:

1. A turbine assembly, comprising:

a turbocharger drive having a first threaded portion; and

a turbine wheel assembly having a turbine wheel and a second threaded portion adapted to engage the first threaded portion of the turbocharger drive.

2. The turbine assembly of claim 1, wherein the turbine wheel assembly includes a turbine shaft having a first end and a second end, the first end of the turbine shaft having the second threaded portion and the second end of the turbine shaft being connected to the turbine wheel.

3. The turbine assembly of claim 1, wherein the second threaded portion of the turbine wheel assembly has male threads.

4. The turbine assembly of claim 1, wherein the second threaded portion of the turbine wheel assembly has female threads.

5. The turbine assembly of claim 1, further including a turbine housing enclosing the turbine wheel assembly.

6. The turbine assembly of claim 5, further including at least one bearing operatively connecting the turbocharger drive to the housing.

7. The turbine assembly of claim 2, wherein the second end of the turbine shaft is inertia welded to the turbine wheel.

8. The turbine assembly of claim 1, further including:

a turbine wheel base; and

a plurality of turbine blades disposed around the outer periphery of the turbine wheel base.

9. A method of assembling a turbocharger comprising:

inserting a turbocharger drive into a main housing, wherein the turbocharger drive includes a first end having a first threaded portion and a second end;

engaging a second threaded portion of a turbine wheel assembly with the first threaded portion of the turbocharger drive; and

connecting a compressor to the second end of the turbocharger drive.

10. The method of claim 9, further including:

pre-assembling the turbocharger drive before inserting the turbocharger drive into the main housing, wherein pre-assembling the turbocharger drive includes:

installing a shaft through a rotor; and

balancing the rotor.

11. The method of claim 9, further including:

attaching a turbine housing to the main housing thereby enclosing the turbine wheel assembly; and

attaching a compressor housing to the main housing thereby enclosing the compressor.

12. A turbocharger, comprising:

a housing assembly;

a turbocharger drive rotatingly disposed in the housing assembly, the turbocharger drive including a first end having a first threaded portion and a second end;

a turbine wheel assembly having a turbine wheel and a second threaded portion adapted to engage the first threaded portion on the turbocharger drive; and

a compressor connected to the second end of the turbocharger drive.

13. The turbocharger of claim 12, wherein the turbine wheel assembly includes a shaft having a first end and a second end, the first end of the shaft having the second threaded portion and the second end of the shaft being connected to the turbine wheel.

14. The turbocharger of claim 12, wherein the second threaded portion of the turbine wheel assembly has male threads.

15. The turbocharger of claim 12, wherein the second threaded portion of the turbine wheel assembly has female threads.

16. The turbocharger of claim 12, wherein the compressor includes a third threaded portion adapted to engage a fourth threaded portion disposed on the second end of the turbocharger drive.

17. The turbocharger of claim 13, wherein the compressor includes a shaft having a first end and a second end, the first end of the shaft having the third threaded portion and the second end connected to the compressor.

18. The turbocharger of claim 12, wherein the housing assembly includes:

a main housing enclosing the turbocharger drive;

a compressor housing enclosing the compressor; and

a turbine housing enclosing the turbine assembly.

19. The turbocharger of claim 12, wherein the turbocharger drive includes:

a shaft; and

a rotor operably connected to the shaft.

20. A turbocharger, comprising:

a housing assembly;

a turbocharger drive rotatingly disposed in the housing assembly;

a turbine wheel assembly having a turbine wheel and a means for removably connecting the turbine wheel to the turbocharger drive; and

a compressor connected to the second end.

21. The turbocharger of claim 20, wherein the turbine wheel assembly includes a shaft having a first end and a second end, the first end of the shaft having the connecting means and the second end of the shaft being connected to the turbine wheel.